Abstract of the Disclosure

What is disclosed is a method and means for reducing the RF noise induced within cable networks within residences or businesses from entering hybrid fiber optic coax networks in the reverse (upstream) direction. The active unit consists of a set of diplex filters connected end to end which segregates the RF traffic into a forward (nominally 50-750/850 MHz) and a reverse (nominally 5-30/36/42 MHz) direction but with an amplifier placed in the low band path. In the simplest embodiment, the active unit is attached directly to an Network Interface Unit (NIU). Signals from the NIU are amplified as they pass through the active unit and are then transmitted through the premise distribution network. The active unit is designed to boost the signals before they are mixed with noise present within the subscriber's premise network. At a second point in the network, typically at the side of the home where the residential premise network connects to the outside cable plant, the network passes through a second passive unit. The passive unit consists of a pair of diplex filters but on the low band path of the diplex filter pair there is an attenuator which attenuates signals in the reverse direction by nominally 15-35 dB, depending upon the value chosen for the attenuator. The attenuator may be either fixed, variable, or a combination of both and will be chosen by the design rules described below. The amplified RF signal and all noise that has entered the premise network cable system in the reverse path are attenuated and then passed through to the outside cable plant.